UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/800,315	03/10/2004	Daniel ManHung Wong	OR03-15501	1742

51067   7590   07/26/2007
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EXAMINER
RAAB, CHRISTOPHER J

ART UNIT	PAPER NUMBER
2166	

MAIL DATE	DELIVERY MODE
07/26/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

	Application No.	Applicant(s)
Office Action Summary	10/800,315	WONG, DANIEL MANHUNG
	Examiner	Art Unit	
	Christopher J. Raab	2166	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>03 May 2007</u>.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3-5,7,8,10-12,14,15,17-19 and 21* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3-5,7,8,10-12,14,15,17-19 and 21* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

        1.☐ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____.

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

01.   This action is in response to Applicant's amendment filed on **05/03/07. Claims 1,**

3 – 5, 7 – 8, 10 – 12, 14 – 15, 17 – 19, and 21 are pending in the present application.

This action is made FINAL, as necessitated by amendment.

Claim Rejections - 35 USC § 103

02.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as
> set forth in section 102 of this title, if the differences between the subject matter sought to be
> patented and the prior art are such that the subject matter as a whole would have been obvious
> at the time the invention was made to a person having ordinary skill in the art to which said
> subject matter pertains. Patentability shall not be negatived by the manner in which the invention
> was made.

03.   The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining

obviousness under 35 U.S.C. 103(a) are summarized as follows:

> 1.   Determining the scope and contents of the prior art.
> 2.   Ascertaining the differences between the prior art and the claims at issue.
> 3.   Resolving the level of ordinary skill in the pertinent art.
> 4.   Considering objective evidence present in the application indicating obviousness or
>   nonobviousness.

04.   **Claims 1, 3 – 5, 7 – 8, 10 – 12, 14 – 15, 17 – 19, and 21** are rejected under 35

U.S.C. 103(a) as being unpatentable over **Chaudhuri et al. (US Patent 7,194,451)**,

hereinafter 'Chaudhuri', in view of **Chidlovskii (US Patent 6,347,314)**.

Consider **claim 1**, Chaudhuri discloses a method for using query signatures in a

database, comprising:

monitoring a system that receives queries (read as receiving a query at the database) (column 2 lines 26 – 54);

generating a query signature, which is defined as a query with the same structure, but different constants (read as parsing the query at the database to determine a signature for the query, wherein the signature specifies a structure based on operations for the query and is independent of the value of the literals in the query) (column 2 lines 46 – 54, column 7 line 40 – column 8 line 2) and that SQL can be used for the queries (read as the signature is constructed from structured query language (SQL) keywords of the query) (column 1 lines 31 – 38);

comparing query signatures to see if it matches an acceptable query (read as determining if the signature is located in the signature cache, which contains signatures for valid queries) (column 7 line 40 – column 8 line 2);

and being able to monitor the health of the system (read as triggering a mismatch alert) (column 2 lines 4 – 22).

However, Chaudhuri does not specifically disclose creating the cache to be used for query signature matchup.

In the same field of endeavor, Chidlovskii discloses creating a cache, such that each region includes a signature, that can be formed by processing queries (read as initializing a signature cache, wherein initializing the signature cache involves trapping database queries in a controlled environment, parsing the database queries to produce a set of valid signatures, and storing the valid signatures in the signature cache) (column 1 line 50 – column 2 line 2, column 2 lines 41 – 43).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the signature caching technique taught by Chidlovskii into the query management technique taught by Chaudhuri for the purpose of allowing a cache of acceptable signatures to be created to be used for further processing.

Consider **claims 3 – 5**, and **as applied to claim 1 above**, Chaudhuri discloses a method such that an error in the system can send an alert to a DBA by email or pager or by logging the problem, and the system can either be halted or continue (read as the mismatch alert throws an error, the mismatch alert is sent to a database administrator and the query is processed, the mismatch alert is sent to a requesting application, thereby allowing the requesting application to take action) (column 2 lines 4 – 22).

Consider **claim 7**, and **as applied to claim 1 above**, Chidlovskii discloses a method such that a valid query can be added to the signature cache (read as if the signature generates a mismatch alert and if the query is a valid query, the method further comprises allowing a database administrator to add the signature to the signature cache) (column 9 lines 14 – 26).

Consider **claim 8**, Chaudhuri discloses a computer-readable storage medium for using query signatures in a database, comprising:

monitoring a system that receives queries (read as receiving a query at the database) (column 2 lines 26 – 54);

generating a query signature, which is defined as a query with the same structure, but different constants (read as parsing the query at the database to

determine a signature for the query, wherein the signature specifies a structure based on operations for the query and is independent of the value of the literals in the query) (column 2 lines 46 – 54, column 7 line 40 – column 8 line 2) and that SQL can be used for the queries (read as the signature is constructed from structured query language (SQL) keywords of the query) (column 1 lines 31 – 38);

comparing query signatures to see if it matches an acceptable query (read as determining if the signature is located in the signature cache, which contains signatures for valid queries) (column 7 line 40 – column 8 line 2);

and being able to monitor the health of the system (read as triggering a mismatch alert) (column 2 lines 4 – 22).

However, Chaudhuri does not specifically disclose creating the cache to be used for query signature matchup.

In the same field of endeavor, Chidlovskii discloses creating a cache, such that each region includes a signature, that can be formed by processing queries (read as initializing a signature cache, wherein initializing the signature cache involves trapping database queries in a controlled environment, parsing the database queries to produce a set of valid signatures, and storing the valid signatures in the signature cache) (column 1 line 50 – column 2 line 2, column 2 lines 41 – 43).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the signature caching technique taught by Chidlovskii into the query management technique taught by Chaudhuri for the purpose

of allowing a cache of acceptable signatures to be created to be used for further

processing.

Consider **claims 10 – 12**, and **as applied to claim 8 above**, Chaudhuri

discloses a computer-readable storage medium such that an error in the system can

send an alert to a DBA by email or pager or by logging the problem, and the system can

either be halted or continue (read as the mismatch alert throws an error, the mismatch

alert is sent to a database administrator and the query is processed, the mismatch alert

is sent to a requesting application, thereby allowing the requesting application to take

action) (column 2 lines 4 – 22).

Consider **claim 14**, and **as applied to claim 8 above**, Chidlovskii discloses a

computer-readable storage medium such that a valid query can be added to the

signature cache (read as if the signature generates a mismatch alert and if the query is

a valid query, the method further comprises allowing a database administrator to add

the signature to the signature cache) (column 9 lines 14 – 26).

Consider **claim 15**, Chaudhuri discloses a apparatus for using query signatures

in a database, comprising:

monitoring a system that receives queries (read as receiving a query at the

database) (column 2 lines 26 – 54);

generating a query signature, which is defined as a query with the same

structure, but different constants (read as parsing the query at the database to

determine a signature for the query, wherein the signature specifies a structure based

on operations for the query and is independent of the value of the literals in the query)

(column 2 lines 46 – 54, column 7 line 40 – column 8 line 2) and that SQL can be used

for the queries (read as the signature is constructed from structured query language

(SQL) keywords of the query) (column 1 lines 31 – 38);

comparing query signatures to see if it matches an acceptable query (read as

determining if the signature is located in the signature cache, which contains signatures

for valid queries) (column 7 line 40 – column 8 line 2);

and being able to monitor the health of the system (read as triggering a mismatch

alert) (column 2 lines 4 – 22).

However, Chaudhuri does not specifically disclose creating the cache to be used

for query signature matchup.

In the same field of endeavor, Chidlovskii discloses creating a cache, such that

each region includes a signature, that can be formed by processing queries (read as

initializing a signature cache, wherein initializing the signature cache involves trapping

database queries in a controlled environment, parsing the database queries to produce

a set of valid signatures, and storing the valid signatures in the signature cache)

(column 1 line 50 – column 2 line 2, column 2 lines 41 – 43).

Therefore, it would have been obvious to one of ordinary skill in the art at the

time the invention was made to incorporate the signature caching technique taught by

Chidlovskii into the query management technique taught by Chaudhuri for the purpose

of allowing a cache of acceptable signatures to be created to be used for further

processing.

Consider **claims 17 - 19**, and **as applied to claim 15 above**, Chaudhuri

discloses a apparatus such that an error in the system can send an alert to a DBA by

email or pager or by logging the problem, and the system can either be halted or

continue (read as the mismatch alert throws an error, the mismatch alert is sent to a

database administrator and the query is processed, the mismatch alert is sent to a

requesting application, thereby allowing the requesting application to take action)

(column 2 lines 4 – 22).

Consider **claim 21**, and **as applied to claim 15 above**, Chidlovskii discloses a

apparatus such that a valid query can be added to the signature cache (read as if the

signature generates a mismatch alert and if the query is a valid query, the method

further comprises allowing a database administrator to add the signature to the

signature cache) (column 9 lines 14 – 26).

Response to Arguments

05.   Applicant's arguments with respect to claims 1, 3 – 5, 7 – 8, 10 – 12, 14 – 15, 17

– 19, and 21 have been considered, but are moot in view of the new ground(s) of

rejection.

Applicant argues that the claims, as amended overcome the 35 U.S.C. § 101

rejections since they now have a tangible result. Examiner agrees and has withdrawn

the rejection(s).

Applicant argues that the claims, as amended overcome the 35 U.S.C. § 112

rejections since they now longer lack antecedent basis. Examiner agrees and has

withdrawn the rejection(s).

Conclusion

06.   Applicant's amendment necessitated the new ground(s) of rejection presented in

this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37

CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the date of this final action.

07.   Any response to this Office Action should be **faxed to** (571) 273-8300 **or mailed**

to:

> Commissioner for Patents
> P.O. Box 1450
> Alexandria, VA 22313-1450

Hand-delivered responses should be brought to

> Customer Service Window
> Randolph Building
> 401 Dulany Street
> Alexandria, VA 22314

08.   Any inquiry concerning this communication or earlier communications from the

Examiner should be directed to Christopher Raab whose telephone number is (571)

270-1090. The Examiner can normally be reached on Monday-Friday from 8:30am to

6:00pm.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's

supervisor, Hosain Alam can be reached on (571) 272-3978. The fax phone number for

the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for published

applications may be obtained from either Private PAIR or Public PAIR. Status

information for unpublished applications is available through Private PAIR only. For

more information about the PAIR system, see http://pair-direct.uspto.gov. Should you

have questions on access to the Private PAIR system, contact the Electronic Business

Center (EBC) at 866-217-9197 (toll-free) or 703-305-3028.

Any inquiry of a general nature or relating to the status of this application or

proceeding should be directed to the receptionist/customer service whose telephone

number is (571) 272-2600.

Christopher Raab $\not{KBP}$
C.R./cr

July 13, 2007

HOSAIN ALAM
SUPERVISORY PATENT EXAMINER